

tions, and to the instances of anencephalous infants, as leading to the following deductions:—

1. In man and the higher mammalia, the brain is the sole centre of the nervous system and the source of its power.

2. The grey matter of the spinal chord and the ganglia of the sympathetic are to be considered as reservoirs of this power, for the immediate action of the parts supplied, which speedily become exhausted if communication with the brain be cut off; and also as modifiers of impressions transmitted from the organs of the brain.

3. The automatic and instinctive actions are not performed independently of the concurrence of the brain, though its influence on these actions is less direct and manifest than in the case of voluntary movements.

4. In several disorders which have been too exclusively referred to the spinal chord, the brain is the organ principally implicated.

“On the Protection of Iron from Oxidation and from becoming foul when it is exposed to the action of sea and other waters.” By Mr. William John Hay. Communicated by Admiral Beaufort, F.R.S.

For attaining the objects mentioned in the title of this paper, the author was led by a process of experimental research, founded on chemical principle, to the discovery of the superior efficacy of a varnish consisting of one part of pitch and two parts of naphtha, together with ten pounds of the sub- and per-oxides of copper to each quart of the varnish. This varnish is made to adhere by applying it to the iron previously rendered hot by placing underneath it braziers of ignited charcoal. He found that this coating of varnish not only protected the iron from oxidation, but formed a perfect barrier to electro-chemical action between the copper oxide and the iron. Two or three of these coats are applied in succession, each being laid on after the preceding one has become hardened. The trials made of this method on various ships, the results of which are detailed in an appendix to the paper, have proved perfectly satisfactory.

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May 11, 1848.

The MARQUIS OF NORTHAMPTON, President, in the Chair.

“On the Chemical Nature of a Wax from China.” By Benjamin Collins Brodie, Esq. Communicated by Sir Benjamin Collins Brodie, Bart., F.R.S.

The wax which is the subject of this investigation, is a substance imported into this country from China. It has the general appearance of spermaceti, but is harder than that body. The author gives reasons for believing that this wax, like bees'-wax, is a secretion from an insect.